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## BASEBALL TRAINING METHOD AND DEVICE THEREFOR

This application is filed within one year of, and claims priority to Provisional Application Serial Number 60/460122, filed 4/4/2003.

BACKGROUND OF THE INVENTION1. Field of the Invention

This invention relates generally to games and devices and, more specifically, to a Baseball Training Method and Device Therefor.

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2. Description of Related Art

Baseball is one of the, if not the most popular organized sport in the entire world. In the United States, it is still referred to as the National Pastime, and is played by children at a very young age, and there is extreme competition even at these early levels.

10 While pitching and fielding are very important to a player's overall skill rating, pitching is a talent that depends largely on purely natural physical ability. Fielding, on the other hand, is a skill that even players of average physical skills can be taught the fundamentals that, with practice, can lead to above-average skills. What truly separates the great players from the average players in baseball is that player's ability to hit the ball. Even players

15 having below average defensive skills are sought after by teams if they can demonstrate the ability to hit well with regularity.

The result of the high value that is placed on hitting ability is that a cottage industry has evolved for teaching players how to hit a baseball. There have been

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innumerable books, schools, devices, systems and methods for teaching a player to hit, and then to enable that player to practice hitting on his or her own time. Of course, the devices and methods that are most successful are those that provide the most real-life experience for the batter. One particularly popular device is the automatic pitching machine; this device will automatically shoot balls to a batter's strike zone (or thereabouts), at a variety of speeds and spins, and is generally recognized to be second-best only to a live pitcher. The problem with the pitching machine is that it is prohibitively expensive for the average family or many schools to purchase. As a result, its use is limited to those that can afford it, and only then in specialized batting practice cages.

The other very prevalent device is the pitch-back net. This is essentially an upright rectangular frame having a net stretched over it. A strike zone is marked in the center of the net. The batter stands next to, and in front of the pitch-back net, and a "pitcher" throws baseballs at the strike zone; the pitch-back net bounces the balls back to the pitcher (unless the batter hits the ball, of course). The problem with this device and method is that the quality of the training really depends on the quality of the "pitcher." If the pitches are easy to hit, and lack any spin or the high speed that emulate game pitching, then the batter will not get any real valuable training experience. As such, this device and method is limited as well, because it is rare that a batter has a high-quality pitcher to hit against.

What is needed, therefore, is a batting practice device and method that is simple, low cost, and provides a good simulation of hitting pitches thrown by seasoned pitchers, but does not require the involvement of a pitcher with any real pitching skills.

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SUMMARY OF THE INVENTION

In light of the aforementioned problems associated with the prior games and devices, it is an object of the present invention to provide a Baseball Training Method and Device Therefor. The device should enable users to experience a very realistic batting  
5 practice without the high cost associated with an automated pitching machine. The device should be low cost and be very small in profile. The device should further not require any pitching skill in order to provide a very realistic hitting experience. The system or device should further include a novel ball that is smaller and much softer than a conventional baseball. Finally, the ball may have holes or indentations formed in a portion of its cover  
10 to permit the user to create differential drag on the ball when launched to the batter, thus providing curved ball movement when in flight.

BRIEF DESCRIPTION OF THE DRAWINGS

The objects and features of the present invention, which are believed to be novel, are set forth with particularity in the appended claims. The present invention, both as to its organization and manner of operation, together with further objects and advantages, may best be understood by reference to the following description, taken in  
5 connection with the accompanying drawings, of which:

Figure 1 is a side view of a preferred embodiment of the baseball/softball training device assembly of the present invention;

Figure 2 is a partial perspective view of the launcher pouch of the device  
10 of Figure 1;

Figure 3 is a cutaway top view of the launcher pouch of the device of Figures 1 and 2;

Figure 4 is a side view of the method for use of the assembly of Figure 1;  
and

15 Figure 5 is a flowchart depicting the methods for creating and practicing with the baseball/softball training device assembly of the present invention.

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DETAILED DESCRIPTION  
OF THE PREFERRED EMBODIMENTS

The following description is provided to enable any person skilled in the art to make and use the invention and sets forth the best modes contemplated by the inventor of carrying out his invention. Various modifications, however, will remain readily apparent to those skilled in the art, since the generic principles of the present invention have been defined herein specifically to provide a Baseball/softball Training Method and Device Therefor.

The present invention can best be understood by initial consideration of Figure 1. Figure 1 is a side view of a preferred embodiment of the baseball/softball training device assembly 8 of the present invention. The assembly 8 consists of two important devices – the baseball/softball training device 10 and the custom compressible ball 32. The training device 10 can be based upon a conventional slingshot. It has a handle 12 having a head 14 from which a wrist stabilizer frame 16 and launcher frame 20 extend. The wrist stabilizer frame 16 is typically a closed loop that is designed to pass over the top of the pitcher's wrist when the pitcher holds onto the handle 12. The wrist stabilizer frame 16 may have a wrist cushion 18 or pad at covering or attached to the portion of the frame 16 that passes over the pitcher's wrist for comfort. Furthermore, the extent that the frame 16 extends backwardly from the handle head 14 can be adjusted to accommodate wrists of virtually any user.

The launcher frame 20 also may be adjustably extendable from the handle head 14. The launcher frame 20 is generally made from a pair of upwardly bent rounded metal bars that terminate in launcher frame tips 22 at their distal ends. An elasticized band

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24 is slipped over or otherwise attached to each tip 22 of the frame 20. The elasticized bands 24 are preferably made from surgical tubing, but could be any type of durable material exhibiting elastic traits similar to surgical tubing.

The elasticized bands 24 attach, at their distal ends, to a pair of attachment members 28. The attachment members 28 are typically made from durable fabric, and serve to provide a durable, flexible attachment point between the elasticized bands 24 and the launcher pouch 26. In some versions, the distal ends of the elasticized bands 24 actually attach to loop inserts (not shown) that are plastic or metal hooks or loops that have an elongated end that is configured to fit inside of the distal ends of the surgical tubing. The other end of the loop inserts are loops or hooks that are easily attached to the attachment members 28.

The attachment members 28 are stitched or otherwise securely attached to the launcher pouch 26. The launcher pouch 26 is also preferably made from a durable fabric, and terminates in a grasping tab 30. The pouch 26 is designed to cooperate with the compressible ball 32 so that the ball 32 will easily fit into the pouch 26, and will also be easily released from the pouch 26 when the pitcher "shoots a pitch."

The compressible ball 32 has very particular features. First, it is made from a soft rubberized material, which makes it much safer to use than a conventional baseball or softball. Second, it is much smaller than a baseball, and is actually the approximate size of a golf ball; one particularly desirable size has been found to be 4 centimeters in diameter. Third, the ball 32 weighs much less than a conventional baseball; one particularly desirable weight has been found to be approximately less than five ounces. Finally, in some versions of the compressible ball 34 one or more apertures 34

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are formed on one side of the ball 34; while these are referred to as apertures herein, the term is intended to refer to indentations or grooves as well. These apertures 34 have been found to enable to pitcher to create differential drag on one side of the ball 34 when he or she shoots it. Changing the orientation of the aperture(s) 34 when the ball 32 is in the pouch 26 allows the pitcher to controllably create more challenging pitches for the batter to hit. Now turning to Figure 2, we can look at the pouch 26 more closely.

Figure 2 is a partial perspective view of the launcher pouch 26 of the device of Figure 1. As discussed above, the pouch 26 is made from nylon or other durable flexible material. The grasping tab 30 is provided to give the pitcher a comfortable and reliable location to pull back on the launcher pouch 26, without needing to grasp the outer surface 40 of the pouch 26; this makes tensioning and releasing of the pouch 26 to shoot a pitch much easier and more reliable for the pitcher. In another non-depicted form, the grasping tab has a thickened portion at its distal end to aid the user in obtaining a firmer grasp.

As shown here, a loop insert 23 is attached to each side of the pouch 26 at the attachment members 28. The elongated ends of the inserts 23 are configured to fit inside of the elasticized bands, and then be held therein by interference fit between the bands and the loop inserts 23.

The pouch 26 forms a ball receptacle 36 that is defined by the inner surface 38 of the pouch 26. As will be discussed below in connection with Figure 3, the pouch 26 will hold the compressible ball 32 when the user puts tension on the grasping tab 30, and will cleanly release the compressible ball 32 when the user releases the grasping tab 30.

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Figure 3 is a cutaway top view of the launcher pouch 26 of the device of Figures 1 and 2. What is critical in the design of the pouch 26 and the ball 32 is that when tension is placed on the grasping tab 30 when the pitcher pulls back on the grasping tab 30 in the tensioning direction T, the side walls 33 of the inner surface of the launching pouch 26 will pinch in direction P against the compressible ball inserted into the ball receptacle 36. Alternatively, the side walls 33 will travel opposite to direction P when the user releases the grasping tab 30. The result, as stated above, is a clean release of the ball 32 for a pitching shot for the batter. Figure 4 depicts how the system operates as a pitching training aid for baseball/softball batting practice.

Figure 4 is a side view of the method for use of the assembly of Figure 1. The pitcher and batter 44 are separated by spacing S; this can actually be 60 (sixty) feet, 6 (six) inches, which is the same distance between a regulation pitcher's mound and home plate. Because of the simplicity of the design of the current invention, it eliminates the need for the pitcher to really understand the pitching motion. The pitcher needs only to shoot the compressible ball 32 at the imaginary strike zone 46 of the batter 44. Because there is no pitcher's windup, that batter's skill is actually tested more than with a conventional pitcher, because there is no telegraphing of the pitch. This makes the timing of the pitch much more difficult for the batter. Finally, turning to Figure 5, we can examine the method for creating and using the assembly of the present invention.

Figure 5 is a flowchart depicting the methods for creating 48 and practicing 50 with the baseball/softball training device assembly of the present invention. The users can either start with a completed training device 10, or they can actually convert a conventional slingshot to function as a training device 10. If converting a conventional slingshot, the user begins by obtaining a conventional slingshot 100. Next, the



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conventional pouch or pocket is replaced with the launcher pouch 26 described hereinabove. Usually this can be most easily accomplished by cutting or pulling off the loop inserts from the conventional slingshot and replacing them with new loop inserts that are a part of and/or already attached to the launcher pouch 26.

5           After obtaining the compressible ball 102, the user places the compressible ball into the launcher pouch 106. If the ball has apertures formed in it, the user orients the ball in the pouch 108 in order to generate the desired drag and resultant curved flight characteristic when shot.

          Next, the "pitcher" pulls back on the pouch via the grasping tab until the  
10   desired tension in the elasticized bands is achieved 110. The pitcher then aims the baseball/softball training device at the batter's strike zone 112, and releases the grasping tab 114. The compressible ball will immediately be released and will travel towards the strike zone at speeds verified to be up to 70 (seventy) miles an hour; hitting this undersized ball at such a speed has proven to provide an extremely realistic and high-  
15   quality batting practice.

          While the application as a pitching practice system is disclosed specifically herein, other uses for this unique assembly have been tested and are extremely desirable. Namely, an alternative game to paint ball. The players each are armed with the training device 10 and a plurality of compressible balls 32 of the present invention (and safety  
20   glasses). The object is then to shoot and hit one another with the compressible balls 32. Because the compressible balls 32 are much softer than paint balls, this game is just as high-speed, without the danger and pain associated with paintball.

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Those skilled in the art will appreciate that various adaptations and modifications of the just-described preferred embodiment can be configured without departing from the scope and spirit of the invention. Therefore, it is to be understood that, within the scope of the appended claims, the invention may be practiced other than as

5 specifically described herein.